

Amendments to the claims:

Please cancel claims 1 - 4 and 13 - 16, and please amend claims 5, 7, 9 and 11 as follows.

1. (canceled)

2. (canceled)

3. (canceled)

4. (canceled)

5. (currently amended) ~~The zoom lens of claim 1;~~ A zoom lens formed of only four lens groups arranged along an optical axis, in order from the object side, as follows:

a first lens group having positive refractive power;

a second lens group having negative refractive power;

a third lens group having positive refractive power; and

a fourth lens group having positive refractive power;

wherein

the first lens group and the third lens group do not move during zooming;

the second and fourth lens groups are moved along the optical axis during zooming;

the first lens group includes, in order from the object side, a first lens element having negative refractive power, a second lens element having positive refractive power and a convex lens surface on the object side that is cemented to the first lens element, a third lens element, and a fourth lens element having positive refractive power and a convex lens surface on the object side;

the fourth lens group includes, in order from the object side, a first lens element having positive refractive power and a convex lens surface on the object side, a second lens element having a biconcave shape, a third lens element having positive refractive power, and a fourth lens

element having positive refractive power; and

the following conditions are satisfied:

$$\underline{v_{d1} < 45}$$

$$\underline{N_{d2} < 1.52}$$

$$\underline{v_{d2} > 63}$$

where

v_{d1} is the Abbe number of the first lens element of the first lens group at the d-line,

N_{d2} is the refractive index of the second lens element of the first lens group at the d-line,

and

v_{d2} is the Abbe number of the second lens element of the first lens group at the d-line.

6. (original) The zoom lens of claim 5, wherein the fourth lens group consists of the first lens element, the second lens element, the third lens element, and the fourth lens element.

7. (currently amended) ~~The zoom lens of claim 2,~~ A zoom lens formed of only four lens groups arranged along an optical axis, in order from the object side, as follows:

a first lens group having positive refractive power;

a second lens group having negative refractive power;

a third lens group having positive refractive power; and

a fourth lens group having positive refractive power;

wherein

the first lens group and the third lens group do not move during zooming;

the second and fourth lens groups are moved along the optical axis during zooming;

the first lens group includes, in order from the object side, a first lens element having negative refractive power, a second lens element having positive refractive power and a convex lens surface on the object side that is cemented to the first lens element, a third lens element, and a fourth lens element having positive refractive power and a convex lens surface on the object side;

the first lens group consists of the first lens element, the second lens element, the third lens element, and the fourth lens element;

the fourth lens group includes, in order from the object side, a first lens element having positive refractive power and a convex lens surface on the object side, a second lens element having a biconcave shape, a third lens element having positive refractive power, and a fourth lens element having positive refractive power; and

the following conditions are satisfied:

$$v_{d1} < 45$$

$$N_{d2} < 1.52$$

$$v_{d2} > 63$$

where

v_{d1} is the Abbe number of the first lens element of the first lens group at the d-line,

N_{d2} is the refractive index of the second lens element of the first lens group at the d-line,

and

v_{d2} is the Abbe number of the second lens element of the first lens group at the d-line.

8. (original) The zoom lens of claim 7, wherein the fourth lens group consists of the first lens element, the second lens element, the third lens element, and the fourth lens element.

9. (currently amended) ~~The zoom lens of claim 3;~~ A zoom lens formed of only four lens groups arranged along an optical axis, in order from the object side, as follows:

a first lens group having positive refractive power;

a second lens group having negative refractive power;

a third lens group having positive refractive power; and

a fourth lens group having positive refractive power;

wherein

the first lens group and the third lens group do not move during zooming;

9 the second and fourth lens groups are moved along the optical axis during zooming;
10 the first lens group includes, in order from the object side, a first lens element having
11 negative refractive power, a second lens element having positive refractive power and a convex
12 lens surface on the object side that is cemented to the first lens element, a third lens element, and
13 a fourth lens element having positive refractive power and a convex lens surface on the object
14 side;

15 the fourth lens group includes, in order from the object side, a first lens element having
16 positive refractive power and a convex lens surface on the object side, a second lens element
17 having a biconcave shape, a third lens element having positive refractive power, and a fourth lens
18 element having positive refractive power; and

19 the following conditions are satisfied:

20
$$v_{d1} < 45$$

21
$$N_{d2} < 1.52$$

22
$$v_{d2} > 63$$

23
$$6 < f_1 / f_w < 15$$

24 where

25 v_{d1} is the Abbe number of the first lens element of the first lens group at the d-line,

26 N_{d2} is the refractive index of the second lens element of the first lens group at the d-line;

27 v_{d2} is the Abbe number of the second lens element of the first lens group at the d-line;

28 f_1 is the composite focal length of the first lens group, and

29 f_w is the focal length of the entire four-group zoom lens at the wide-angle end.

1 10. (original) The zoom lens of claim 9, wherein the fourth lens group consists of the first lens
2 element, the second lens element, the third lens element, and the fourth lens element.

1 11. (currently amended) ~~The zoom lens of claim 4;~~ A zoom lens formed of only four lens groups
2 arranged along an optical axis, in order from the object side, as follows:

3 a first lens group having positive refractive power;

a second lens group having negative refractive power;
a third lens group having positive refractive power; and
a fourth lens group having positive refractive power;

wherein

the first lens group and the third lens group do not move during zooming;
the second and fourth lens groups are moved along the optical axis during zooming;
the first lens group includes, in order from the object side, a first lens element having
negative refractive power, a second lens element having positive refractive power and a convex
lens surface on the object side that is cemented to the first lens element, a third lens element, and
a fourth lens element having positive refractive power and a convex lens surface on the object
side;

the first lens group consists of the first lens element, the second lens element, the third
lens element, and the fourth lens element;

the fourth lens group includes, in order from the object side, a first lens element having
positive refractive power and a convex lens surface on the object side, a second lens element
having a biconcave shape, a third lens element having positive refractive power, and a fourth lens
element having positive refractive power; and

the following conditions are satisfied:

$$\underline{v_{d1} < 45}$$

$$\underline{N_{d2} < 1.52}$$

$$\underline{v_{d2} > 63}$$

$$\underline{6 < f_1 / f_w < 15}$$

where

v_{d1} is the Abbe number of the first lens element of the first lens group at the d-line,

N_{d2} is the refractive index of the second lens element of the first lens group at the d-line,

v_{d2} is the Abbe number of the second lens element of the first lens group at the d-line,

f_1 is the composite focal length of the first lens group, and

f_w is the focal length of the entire four-group zoom lens at the wide-angle end.

1 12. (original) The zoom lens of claim 11, wherein the fourth lens group consists of the first lens
2 element, the second lens element, the third lens element, and the fourth lens element.

13. (canceled)

14. (canceled)

15. (canceled)

16. (canceled)

1 17. (original) The zoom lens of claim 5, wherein at least one of the lens surfaces of the lens
2 elements of the third lens group and the fourth lens group is aspheric.

1 18. (original) The zoom lens of claim 6, wherein at least one of the lens surfaces of the lens
2 elements of the third lens group and the fourth lens group is aspheric.

1 19. (original) The zoom lens of claim 7, wherein at least one of the lens surfaces of the lens
2 elements of the third lens group and the fourth lens group is aspheric.

1 20. (original) The zoom lens of claim 8, wherein at least one of the lens surfaces of the lens
2 elements of the third lens group and the fourth lens group is aspheric.